

In th Claims:

Please amend Claim 11 as follows:

11. (Twice Amended) An apparatus for analyzing chemical species comprising:
- a time-of-flight mass analyzer with an ion pulsing region and a detector,
 - an ion source for producing ions forming an ion beam from said chemical species,
 - a two-dimensional multipole ion guide having an entrance end where ions enter said ion guide from said ion source and an exit end where ions exit said ion guide,
 - said two-dimensional multipole ion guide functioning as a two-dimensional ion trap,
 - wherein said two-dimensional multipole ion guide comprises a plurality of spaced apart rods parallel to each other and extending from said entrance end to said exit end,
 - said ion beam having an axis thereof which is parallel to said spaced apart rods.
 - means for pulsing said ions transferred from said pulsing region into said time-of-flight mass analyzer for mass analysis,
 - and means for detecting said mass analyzed ions.